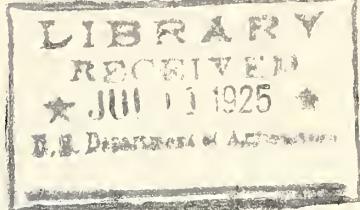


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THE EXTENSION HORTICULTURIST

July 1, 1925.

* Field meetings will be one of the important *
* features of the Extension program for July and *
* August. The value of these field meetings and *
* tours as a means of spreading influence will de- *
* pend largely upon the way that they are planned *
* and advertised. It takes more than ordinary *
* preparation and planning to conduct a success- *
* ful tour or field meeting, in fact, it requires *
* real generalship.
*

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Office of Horticultural Investigations
and Extension Service Cooperating
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Washington, D. C.

Field Meeting at Marietta, Ohio.

Rain and generally threatening weather did not deter Ohio vegetable growers who flocked to Marietta last Sunday and Monday for the annual field meeting which was held at the Marietta branch of the Ohio Experiment Station on June 29th. The ladies who served the noonday luncheon were asked to prepare for about sixty, more or less, and it turned out to be more for they served a total of one hundred and seventy-five. The occasion was not only the annual field meeting at the sub-station but the summer meeting of the State Vegetable Growers Association and the members came from Toledo, Cleveland, Columbus, Circleville, Cincinnati, Zanesville and pretty nearly every corner of the State where there is a live bunch of vegetable growers. Sunday evening the parties began to arrive by auto and the LaFayette Hotel was the scene of happy greetings and the formation of numerous small groups, some of which I was told did not break up until well after midnight. There were five county agents in attendance at the field meeting and they brought delegations of their cooperators with them. The tour and field meeting was in charge of Prof. Roy Magruder and Prof. J. H. Gourley of the Ohio Experiment Station at Wooster. The Horticultural Department of the University was represented by Prof. L. M. Montgomery, and Mr. N. W. Glines did the honors and furnished the smiles for the Extension Service. And by the way the success of the day was due in no small degree to the genial atmosphere and the spread of sunshine from those who had the arrangements in charge. Everything on the Station grounds was in the best of order - thanks to the efficient management of Mr. Riley, the Superintendent, and Mrs. Riley, who was largely responsible for the success of the entertainment features of the meeting.

The forenoon was devoted to a tour of a part of the Marietta trucking section, the entire party leaving the hotel about 8:00 A. M. by auto and going first to the west side of the Muskingum river where demonstrations in cabbage packing were staged. Prof. Gourley and others explained the cropping system followed in the Marietta section and made announcements for the day. Following these demonstrations the party made a tour of several truck farms then returned to Marietta and proceeded to the Experiment Station for lunch. Following the luncheon the crowd was assembled on the front lawn of the residence and a short program was given. The meeting was presided over by Prof. Gourley, acting for the Director of the Ohio Experiment Station, who introduced Mr. Edward Seitz, President of the Ohio Vegetable Growers Association who spoke of the work of the State Association and outlined plans for attending the National Vegetable Growers convention at Providence, R. I. in September. Prof. H. C. Thompson, Head of the Vegetable Department of the New York College of Agriculture at Cornell University, was the principal speaker, his subject being "Some Points in Tomato Growing." Following the short program Prof. Magruder took charge and a general inspection of the plots ensued. Late in the afternoon the visitors departed for their homes feeling that they had enjoyed a most profitable day. In short, the event was a great success, thanks to the efficient planning and management on the part of those in charge.

A brief description of the vegetable industry around Marietta may be of interest to our readers. Marietta is situated at the junction of the Ohio and Muskingum Rivers, and the soil upon which truck crops are grown is mainly of a gravelly loam or river bottom silt loam. Part of the land overflows from time to time and occasionally considerable silt is deposited upon the soil during these overflows.

Early cabbage and early tomatoes are the two most important truck crops grown. Due to the character of the soil and the protected location, the section around Marietta is especially adapted to the production of early tomatoes. The usual varieties including Bonny Best, Globe, and Detroit Red are grown, the plants being started first in hotbeds then pricked off in coldframes and finally set in the field about the 1st to the 10th of May. The plants are set in rows about 4 feet apart and 18 to 24 inches apart in the rows. A stake about $3\frac{1}{2}$ feet in height is driven by each plant and the plants pruned to a single stem and tied to the stakes.

Shipments of pink tomatoes usually begin about the 28th of June, but this year the crop was held back early in the season by cold weather and by lack of rainfall later. The greater part of the tomatoes grown in the Marietta section are marketed in Pittsburg, however, owing to the high quality of the fruit produced, other markets are ready to take any available surplus.

Cabbage, the other important vegetable crop in the Marietta section, was being marketed at the time of the field meeting on June 29th. Copenhagen Market is used almost exclusively, however, a part of the growers this year planted Wakefield, using southern grown plants. Copenhagen Market shows a wide variation in strain and great lack of uniformity, illustrating most forcibly the need for more dependable sources of seed. The Wakefield plants brought in from the south show greater variation and lack of uniformity than locally grown plants of Copenhagen Market. Many of the cabbage fields show a considerable percentage of damage from "Yellows" and "Blackleg," which caused considerable loss the past season, especially in the plant beds.

Despite the drawbacks resulting from inferior seed, diseases, and other causes, the truck growers in the Marietta section are remarkably successful, and one cannot help but conjecture what their success might really be if conditions were at their best. At the local branch of the Ohio Experiment Station, which is supported largely by the Marietta Truck Growers Association, these growers have an excellent opportunity to have definite work conducted upon their problems. On the Station grounds soil fertility and fertilizer comparisons have been going for ten years preceding the present season. In this line definite results have been obtained and the management of the Station now plan to modify the fertilizer experiments and to add experimental work along lines suggested by the growers problems. The results obtained at the station are of special interest and value to the growers due to the fact that the station itself is supported largely by the growers.

If any of our readers should happen to be in the vicinity of Marietta within the next 30 days it will certainly pay them to stop off for a short visit.

Field Trip of Prof. Close to Ohio, Michigan and Illinois.

Ohio. This trip was made with Horticultural Specialists Beach and Holland in the northeastern part of the State where the late spring frosts, especially the one of May 24 and 25, did so much injury to the fruit crop. The crop is spotted, some orchards and vineyards having a good set and others no set at all or only a very small one. This condition has interfered with fruit extension work, particularly spraying and fertilizing.

In one especially well located spraying demonstration orchard there is a full crop of clean Rome Beauty apples. This is the first scab free crop these trees have borne for years. Spraying was done at 300 pounds pressure, using 12 gallons of spray material per tree at each of the four applications up to the time of the trip. Several other spraying demonstrations for apple scab and blotch were visited and all but one showed good control.

Bridge grafting has been very successful. In one of the grape fertilizer demonstrations the use of 500 pounds of nitrate of soda per acre showed better vine growth and amount of crop than the application of one-half that amount or than the check plot. Other grape fertilizer demonstrations were not yet showing much in the way of results from the use of nitrate of soda. Some of the vineyards in the grape section along Lake Erie are on heavy light colored clay land which has been growing grapes for at least 40 years. A fan shaped system of pruning is universally used.

An interesting trip was made through the peach sections of Catawba Island. Two of the noticeable features of peach growing there are the lack of young orchards and the prevailing type of severe flat topped pruning. The peach growers are mostly of foreign parentage and are very slow to adopt new methods of any kind.

The many demonstrations in other parts of Ohio were not visited on this trip. Demonstration work is being done in 171 orchards in 50 counties. The fruit and vegetable extension work in Ohio is well organized and the plans of work are among the best which have reached the Washington office.

Michigan. The eradication of fire blight on apple and pear trees and the bridge grafting of trunk blighted trees are the major lines of work carried on by Fruit Specialists Cardinell and Hootman. Blight schools of three days or more followed by bridge grafting schools were held and an intensive training given so that the men were able to distinguish blight cankers on twigs, limbs, trunks and roots, to cut out and disinfect the diseased areas, and to bridge graft over collar and root blighted areas. These schools were held in the orchards and at times the weather was very cold and disagreeable. At a three-day school near Grand Rapids, 90 men worked the first day, 75 the second day, and 35 the third day. This was followed by a bridge grafting school. During 1924, scores of fruit owners were trained to become expert in detecting and removing blight cankers. In bad cases where the blight went from the trunk to the roots the earth was dug away and the blight bark was pared off, the wounds disinfected and the exposed wood covered with a preparation of creosote oil and coal tar. In some cases the roots were diseased at least 4 feet from the trunk. In such instances either seedling or nursery trees were planted by the side of the

blighted tree and the tops grafted into the blighted tree trunk above the blight injury. These little trees then became nurse trees to supply plant food and moisture to the top of the blighted tree. In cases where the roots were blighted only a short distance from the trunk, bridge grafting from the roots was done.

In one orchard near Ann Arbor about 2,000 trees of the 8,000 10-year old apple and pear trees were blighted. Besides training men in a blight school at this orchard those who already had the training were brought from other sections and for three weeks 24 men were working at blight eradication and bridge grafting. The experts received \$7.00 to \$10.00 per day for this work. Five thousand scions were used in bridge grafting and 700 seedling trees besides a good many nursery trees were used as nurse trees in this orchard. The cost to the orchard owner was \$3,000 for the work on 2,000 blighted trees.

There had been some blossom blight and at the time of the trip there was some twig blight on a few of the treated trees. The blossom blight was doubtless brought by bees and other insects and the twig blight spread from these infections.

One outstanding piece of spraying work which Mr. Cardinell is doing is the use of spray pressures of 200, 300, 400, 500, 600, 700, and 800 pounds on large Tompkins King and medium sized Jonathan apple trees. The results of this work will appear in bulletin form in due time.

The pear psylla has been doing considerable injury in Michigan and the spray mixtures in general use gave only fair control of this insect. About 4 years ago a fruit grower near Fenville devised a spray mixture which he claimed controlled the psylla. This new remedy began to attract attention and it was noticed that the only pears free from psylla injury brought to the Fenville Fruit Exchange were those of the owner of the new spray remedy. A very few neighboring fruit growers purchased the right to use this remedy and were able to control psylla. In the spring of 1925, Mr. Reynolds, the originator of this remedy was prevailed upon to allow Mr. Cardinell to use his formula by the side of trees sprayed with the usual psylla remedies. The result was that there was almost a perfect eradication of the psylla by the Reynolds formula while only partial control was obtained from the other remedies.

Fruit tree pruning in Michigan is taught in pruning schools lasting from 2 to 6 days each. It is Mr. Cardinell's opinion that during the time of the school men are so thoroughly trained in pruning that they are able to handle their pruning work and do not need more instruction the next year. By this method the schools are held in different sections each year and a very large number of men receive complete training in fruit tree pruning. Eight pruning schools were held last spring.

The last day in Michigan was spent with Prof. V. R. Gardner and Prof. Stanley Johnston in looking over the experimental work being conducted at the South Haven Fruit Experiment Station and in nearby orchards. One of the most interesting experiments in a commercial peach orchard consists of different kinds of pruning and different kinds of fertilizing. Some plots are winter pruned only, some are winter and summer pruned, others are un-pruned, some are fruit thinned and others un-thinned. The fertilizer is used on a part of the trees receiving the different kinds of pruning and the fruit thinning in comparison with the other trees without fertilizer.

In another orchard bearing Elberta and J. H. Hale peach trees were covered last spring with a large wire screen cage and a swarm of bees was put inside the cage. The object was to study the effect of insect pollination on the J. H. Hale variety which is known to be self-sterile. There is a good set of peaches on the J. H. Hale tree.

Illinois. Mr. A. H. Watson, Extension Vegetable Specialist, resigned his position - effective June 30 - to take graduate work at Purdue University. Mr. B. L. Weaver, a recent graduate of the University of Illinois, was appointed to begin vegetable extension work on July 1. These two men spent the last half of June together in visiting the demonstrators, county agents, and demonstrations in 19 counties so that Mr. Weaver might become familiar with the vegetable demonstration work under way. The lines of work are : - Tomato wilt resistance, watermelon wilt resistance, cabbage yellows resistance, tomato fertilizers, cucumber fertilizers, home vegetable gardens and extension schools.

Prof. W. S. Brock will give up the fruit extension work on September 1, and become a member of the horticultural teaching staff of the University. His major lines of extension work follow: -

Extension Schools. One school lasting 4 days had a registration of 215 and an average attendance of 132. Seven county agents and fruit growers from 11 counties attended the school. At another school lasting three days, the registration was 141 and the average attendance was 89. The fruit growers at this school owned 300,000 apple trees.

Fruit Spray Rings. There are 38 fruit spray rings all located in 17 of the northern counties where there is little if any commercial fruit growing. There is an average of about 9 members in these rings. A very few of them have not been successful because a reliable man to do the spraying is not available.

Commercial Orchard Demonstrations. There are 48 of these and they include pruning, fertilizing, mulching and spraying. The high renewal or long system of fruit tree pruning developed on the Pacific Coast is used in Illinois.

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Interesting the Children in Nut Culture.

Considerable interest has recently been stimulated in nut growing among boys and girls both as club and individual features. There is a wonderful opening for extension horticulturists to arouse enthusiasm in children by teaching them something about nuts and nut trees such as the different kinds, the collection of wild nuts for exhibiting at fairs, the way the husks open or do not open, the difference in thickness of shell and plumpness and quality of kernel, and the curing of nuts for eating or stratification for planting next spring.

A reprint from one of the nut journals is enclosed to those extension horticulturists whom we believe may be interested in the subject. It is our hope that they will organize one or more groups of children to study something about nuts and nut growing as mentioned in the enclosed reprint.

Fruit, Vegetable and Landscape Extension Literature
Received During May and June, 1925.

Iowa State College - Ames

Varieties of Tree Fruits for Iowa Planting. Cir. No. 92, June, 1924.

Michigan State College - East Lansing

Apple Storage. Ext. Bul. No. 41, May, 1925.

Cherry Leaf Spot Control. Ext. Bul. No. 42, May, 1925.

Dewberry Anthracnose Control. Ext. Bul. No. 43, May, 1925.

Minnesota - University of - St. Paul

Treating Seed Potatoes with Hot Formaldehyde. Cir. No. 22, Mch., 1925.

New York - College of Agriculture - Ithaca.

Cultivated Plants, Cornell Rural School Leaflet. Vol. 18, No. 4, Mch. 1925.

North Dakota Agricultural College - Agricultural College

Trees, Shrubs and Plants for North Dakota Farmsteads. Cir. 67, Mch., 1925.

Ohio State University - Columbus

The Flower Bed. No. 83, April, 1925.

South Carolina - Clemson College, Clemson College, P. O.

Home Garden Hand Book. Ext. Cir. 68, April, 1925.

Virginia Agricultural and Mechanical College, Blacksburg

Spray Information for Virginia Fruit Growers. No. 94, Jan. 1925.

Wisconsin - University of, Madison

Bush Fruits for Wisconsin. Cir. 187, March, 1925.

Rootrot of Peas. Cir. 188, April, 1925.

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Changes in State Extension Staffs.

Mr. A. P. Boles, Horticultural Specialist in Missouri, has recently resigned and is now with the Mid-Mountain Fruit Company, Inc., of Bentonville, Arkansas.

Mr. A. G. Smith, Vegetable Extension Specialist in Virginia, resigned his position July 1. We have not learned what his new work is to be.

Prof. C. B. Sayre of the University of Illinois, has accepted a position at the Experiment Station, Geneva, New York. At various times Prof. Sayre assisted in vegetable extension work in Illinois.

In the trip notes on Illinois, mention is made of the change in positions of Messrs. Brock, Weaver and Watson.

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W. R. Beattie,
C. P. Close,

Extension Horticulturists.

